Authorization Basis Amendment Request

Evaluation and Certification of Revised SRD

This revision involves the modifications of standards previously identified in the approved SRD, specifically SRD Vol. II Appendix A, *Implementing Standard for Safety Standards and Requirements Identification*.

Consequently, an evaluation that demonstrates that the revised SRD will continue to identify a set of standards that will provide adequate safety, comply with all applicable laws and regulations, and conform to top-level safety standards is required. This determination must be certified.

Evaluation

There are 4 groups of changes to SRD Vol. II Appendix A in this ABAR. The evaluation of each group of changes is shown in italics.

1. Clarify the description of the process of selecting Work Activity Experts, which ensures that the most qualified personnel on the RPP-WTP project participate in this role. Generalize participation of technical staff of the Project Design Managers.

   The purpose of this change is to ensure that the most knowledgeable project personnel are involved in the ISM process. Consequently, the change enhances safety. There are no applicable laws or regulations regarding personnel requirements for ISM. This change conforms with top-level principles 4.1.2, Safety Responsibility, and 5.2, Process Safety Management Program.

2. Clarify that the safety requirement and standards identification process management team is the Process Management Team (PMT) and revise the makeup of the PMT.

   This change clarifies the role and makeup of the Process Management Team in the ISM process. Adding the Functional Engineering Manager, Engineering Manager and Operational Safety Manager to the PMT provides additional expertise and helps to minimize resource conflicts; consequently, the change enhances safety. Inclusion of Project Design Managers without their facility assignment provides flexibility in the event that future design changes result in organizational changes affecting Project Design Managers. This latter change maintains adequate safety, since there is no actual change to the makeup of the PMT. There are no applicable laws or regulations regarding personnel requirements for ISM. This change conforms with top-level principles 4.1.2, Safety Responsibility, and 5.2, Process Safety Management Program.

3. Clarify that the integrated teams perform work identification, hazard evaluation, control strategy development, and standards identification.

   Integrated teams perform all steps of ISM on a given system, as opposed to having separate teams perform the different steps. This change enhances integration by ensuring consistency and minimizes the potential for "hand-off" errors from one team to another. Furthermore, individual PMT members will provide subject matter experts as necessary to augment the integrated teams. Therefore, the change enhances safety. There are no applicable laws or regulations regarding personnel requirements for ISM. This change conforms with top-level principles 4.1.2, Safety Responsibility, and 5.2, Process Safety Management Program.

4. Clarify that documentation of the linkage of control strategy to respective hazards will be contained in the hazard database. Clarify the requirement to provide a defensible rationale for selection of all preferred control strategies to note that, when the appropriate control strategy is self-evident, or where a proven control strategy exists that is appropriate to the hazard, the rationale need only state that fact and not provide a discussion of other, obviously inappropriate, alternatives. In other cases, a formal evaluation of potential alternative control strategies is required, along with the defensible rationale for selection of the preferred strategy.

   In conjunction with this portion of the SRD revision, an editorial correction is being made to Appendix A section 9.0, Formal Documentation, to clarify that it is the results of the standards selection process, not a description of the process, that is to be documented following confirmation by the Project Safety Committee (PSC).

   The change requires that documentation of the hazard control strategy development process clearly indicate selection of the control strategies and show the linkage of the control strategies to the respective hazards. That linkage is documented in the Safety Implementation Process Database (SIPD), which is the title of the project hazard database.

   With regard to the requirement to provide a defensible rationale for the selection of the control strategy, the integrated teams, which include suitably qualified staff from safety, operations and the engineering disciplines, ensure, during the development process, that the control strategies selected are appropriate for their respective hazards. In many cases the correct control strategy is self-evident. For example, to control the hazard due to direct radiation exposure to radioactive feed material, the correct control strategy is to place the material in shielded tanks. It would be a misuse of resources to consider alternatives to this proven solution. Similarly, a proven control strategy may exist that is appropriate to the hazard under consideration. If no other alternative control strategies are identified that appear to be equally attractive, then it should not be necessary to provide a detailed discussion of alternatives in documenting the selection of the control strategy. This approach is consistent with top-level principles 4.1, Overall Principles, subsection 4.1.6.2, Established Techniques and Procedures, and 4.2, Design, Construction, and Pre-Operational Testing, subsection 4.2.2.1 Proven Engineering Practices, which indicate a strong regulatory preference for the use of proven technologies and design features.

   In the remainder of cases where the correct control strategy cannot be selected by application of informed judgment of the integrated team, it is necessary to carry out and document the control strategy selection process. An example of this is selection of an active and/or passive strategy to control hazards associated with hydrogen accumulation. (Typically, a full discussion of alternative control strategies will be provided for those hazards covered by Topical Meetings.)

   There are no applicable laws or regulations regarding documentation requirements for ISM. In conformance with top-level principle 5.2, Process Safety Management Program – particularly subsection 5.2.2, Process Hazard Analysis, BNFL Inc. will document the results of the hazards analysis including process hazards and possible safety and health effects and will submit the results of the hazards analysis to the Director of the Regulatory Unit for evaluation and in support of authorization decisions and regulatory oversight.

The current wording of SRD Appendix A section 9.0, Formal Documentation, implies that a description of the standards selection process is to be documented following confirmation by the Project Safety Committee (PSC). An editorial correction has been made to clarify that it is the results of that process that will be so documented. (The process itself is already described in SRD Appendix A.) This correction is consistent with Table 1 of DOE/RL-96-0004.

Certification

The SRD continues to identify a recommended set of standards that, when properly implemented, will provide adequate safety, comply with all applicable laws and regulations, and conform to top-level safety standards.

Certification that the revised SRD identifies a set of standards that continues to provide adequate safety, complies with all applicable laws and regulations, and conforms to top-level safety standards is based on adherence to the DOE/RL-96-0004 standards identification process and successful completion of review and confirmation by the PSC.

RPP-WTP Manager of Operations /Designee Date